

## **APPENDIX III:**

### **THREATENED AND ENDANGERED SPECIES CORRESPONDENCE**



# United States Department of the Interior

## Fish and Wildlife Service



Bloomington Field Office (ES)  
620 South Walker Street  
Bloomington, IN 47403-2121  
Phone: (812) 334-4261 Fax: (812) 334-4273

August 7, 2006

Ms. Desiree Poole  
V3 Companies of Illinois, Ltd.  
7325 Janes Avenue  
Woodridge, Illinois 60517

Dear Ms. Poole:

This responds to your letter of July 25, 2006 requesting endangered species information from the U.S. Fish and Wildlife Service (FWS) for a watershed management plan for the Anderson River watershed in Crawford, Dubois, Perry and Spencer Counties, Indiana.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

### Endangered Species

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and gray bat (*M. grisescens*), and federally threatened bald eagle (*Haliaeetus leucocephalus*).

Indiana bats hibernate in caves, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Like all other bat species in Indiana, the Indiana bat diet consists exclusively of insects.

The east boundary of the Anderson River watershed only marginally overlaps the karst area of Indiana where Indiana bat hibernacula typically occur, and there are no known caves in the watershed, however Indiana bats have also been found hibernating in abandoned mines. There is suitable summer reproductive habitat for Indiana bats present throughout the watershed planning area. There is one summer record of this species in the watershed but to our knowledge most of the watershed has not been surveyed.

The gray bat is a southern species which inhabits caves year-around and typically migrates between winter hibernation caves and summer cave roosts used for reproduction and foraging. Preferred foraging habitat is along wooded stream corridors and their forage base often includes a high percentage of aquatic insects. There is only one significant summer maternity colony known in Indiana, in southern Clark County. There are summer records of gray bats in the Anderson River watershed, and there is suitable foraging habitat along forested stream corridors elsewhere in the watershed, but based on our current knowledge the current records represent foraging by individuals from maternity colonies outside the watershed.

Bald eagles typically nest near large rivers and other large water bodies. There are currently no eagle nests within the Anderson River watershed but there is suitable habitat along the Ohio River, the lower Anderson River, and large impoundments which are mostly surrounded by undeveloped land.

When project plans are developed please contact our office for further consultation. For further discussion, please contact Mike Litwin at (812) 334-4261 ext. 205.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael A. Litwin", is written over the typed name "Scott E. Pruitt".

Scott E. Pruitt  
Field Supervisor



Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor  
Kyle J. Hupfer, Director

Division of Nature Preserves  
402 W. Washington St., Rm W267  
Indianapolis IN 46204-2739

August 2, 2006

Ms. Desiree A. Poole  
V3 Companies of Illinois, Ltd.  
7325 Janes Avenue  
Woodridge, IL 60517

Dear Ms. Poole:

I am responding to your request for information on the endangered, threatened, or rare (ETR) species, high quality natural communities, and natural areas documented from the Anderson River watershed, Crawford, Dubois, Perry and Spencer Counties, Indiana. The Indiana Natural Heritage Data Center has been checked and enclosed you will find information on the ETR species documented from the watershed area.

For more information on the animal species mentioned, please contact Katie Smith, Nongame Supervisor, Division of Fish and Wildlife, 402 W. Washington Room W273, Indianapolis, Indiana 46204, (317)232-4080.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. You should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service  
620 South Walker St.  
Bloomington, Indiana 47403-2121  
(812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal. For more information, please contact:

Kyle Hupfer, Director  
Department of Natural Resources  
attn: Christie Stanifer  
Environmental Coordinator  
Division of Water  
402 W. Washington Street, Room W264  
Indianapolis, IN 46204  
(317)232-4160

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)232-8059 if you have any questions or need additional information.

Sincerely,



Ronald P. Hellmich  
Indiana Natural Heritage Data Center

enclosure:      data sheet  
                     invoice

\*\*\*\* Effective January 1, 2006, the Indiana Natural Heritage Data Center, Indiana Department of Natural Resources will be raising the fee for information requests to \$42 per one half hour, one half hour minimum. Most requests take one half hour to complete. An invoice for the amount due will be included with the completed request response.



8/2/2006      Endangered, Threatened and Rare Species, and High Quality Natural Communities documented  
from the Anderson River Watershed, Crawford, Dubois, Perry and Spencer Counties, Indiana

TYPE	SPECIES NAME	COMMON NAME	FED	STATE	TRS	LASTOBS	COMMENTS
Bird	<i>Buteo lineatus</i>	Red-shouldered Hawk		SSC	003S003W 08	1997-06-03	
Bird	<i>Buteo platypterus</i>	Broad-winged Hawk		SSC	004S002W 16	1993-SU	
					NWQ SEQ SWQ		
Bird	<i>Buteo platypterus</i>	Broad-winged Hawk		SSC	003S003W 08	1997-06-03	
Bird	<i>Dendroica cerulea</i>	Cerulean Warbler		SSC	003S003W 12	1998-07-09	
					SEQ NEQ SEQ		
Bird	<i>Helmitheros vermivorus</i>	Worm-eating Warbler		SSC		1997-06-03	
Bird	<i>Helmitheros vermivorus</i>	Worm-eating Warbler		SSC	003S002W 07	1998-07-09	
					SEQ NWQ SWQ		
Bird	<i>Mniotilta varia</i>	Black-and-white Warbler		SSC	003S003W 08	1998-06-15	
Bird	<i>Wilsonia citrina</i>	Hooded Warbler		SSC	002S002W 29	1993	
					SEQ NWQ SEQ		
Bird	<i>Wilsonia citrina</i>	Hooded Warbler		SSC	003S002W 04	1993	
					NEQ SEQ NWQ		
Bird	<i>Wilsonia citrina</i>	Hooded Warbler		SSC	004S003W 04	1985-06-19	
Bird	<i>Wilsonia citrina</i>	Hooded Warbler		SSC	003S003W 08	1998-06-03	
					SWQ NWQ NWQ		
Insect	<i>Amblyscirtes</i>	Lace-winged		SR	003S003W 23	1995-08-15	
Lepidoptera	<i>aesculapius</i>	Roadside-skipper			WH		
Insect	<i>Cyllopsis gemma</i>	Gemmed Satyr		SR	003S003W 23	1994-08-24	
Lepidoptera					WH		
Insect Odonata	<i>Gomphus hybridus</i>	Cocoa Clubtail		SE	003S003W 17	1996-05-23	
					NWQ SWQ		
Mammal	<i>Lynx rufus</i>	Bobcat			003S002W 27	2002-10-11	
Mammal	<i>Lynx rufus</i>	Bobcat			005S002W 5	2002-03-01	
Mammal	<i>Lynx rufus</i>	Bobcat			005S002W 19	1992-06-30	
Mammal	<i>Lynx rufus</i>	Bobcat			002S003W 25	1986	
Mammal	<i>Lynx rufus</i>	Bobcat			003S002W 26	2002-12-11	
Mammal	<i>Myotis grisescens</i>	Gray Bat	LE	SE	004S004W 12 EH	1997-08-13	
					SEQ		
Vascular Plant	<i>Buchnera americana</i>	Bluehearts		SE	005S002W 22	2000-08-08	
					SWQ		
Vascular Plant	<i>Eupatorium album</i>	White Thoroughwort		ST	005S002W 22	2000-09-18	
					SWQ		
Vascular Plant	<i>Rubus deamii</i>	Deam Dewberry		SX	004S002W 10	1927-04-29	
Vascular Plant	<i>Rudbeckia fulgida</i> var. <i>fulgida</i>	Orange Coneflower		WL	002S003W 36	1989-09-30	
					SEQ NEQ NEQ		
Vascular Plant	<i>Sagittaria australis</i>	Longbeak Arrowhead		SR	005S003W 06	1927-10	
Vascular Plant	<i>Setaria geniculata</i>	Bristly Foxtail		SE	005S002W 22	2000-08-08	
					NEQ SWQ SWQ		
Vascular Plant	<i>Spiranthes vernalis</i>	Grassleaf Ladies'-tresses		WL	004S002W 11	2001-06-27	
					SEQ NEQ NWQ		
Vascular Plant	<i>Verbesina virginica</i>	White Crownbeard		SE	005S002W 22	2000-09-18	
					E1/2 SWQ NWQ		
Vascular Plant	<i>Woodwardia areolata</i>	Netted Chainfern		SR	004S003W 30	1992-08-28	
					SEQ NEQ SWQ		
Vascular Plant	<i>Woodwardia areolata</i>	Netted Chainfern		SR	004S002W 04	2000-05-16	
					SWQ SEQ NEQ		

Fed: LE = listed federal endangered; C = federal candidate species

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SG = state significant; WL = watch list; no rank = not ranked but tracked to monitor status

Grank: Heritage Global Rank: G1 = critically imperiled; G2 = imperiled; G3 = rare or uncommon; G4 = widespread but with long term concerns; G5 = widespread and secure; GU = unranked

Srank: State Heritage Rank: S1 = critically imperiled; S2 = imperiled; S3 = rare or uncommon; S4 = widespread but with long term concerns SNR = not ranked; B = breeding rank; SNA = not resident in state in non-breeding season

## **APPENDIX IV:**

### **MACROINVERTEBRATE VOUCHER SPECIMENS**

18 May 2007

Walter Levernier  
V3 Companies of Illinois Ltd.  
7325 Janes Ave.  
Woodridge, IL 60517

Dear Walter,

I have examined the specimens you sent us in February, 2007 and found them all to have been identified correctly, as far as I could determine.

Thank you for continuing to deposit voucher specimens from your surveys in the Purdue Entomological Research Collection.

Sincerely,



Arwin Provonsha  
Curator of Collections





February 6, 2007

Dr. Arwin Provonsha  
Department of Entomology  
901 W. State Street  
West Lafayette, IN 47907-2089

Re: Invertebrate Voucher Specimens  
Anderson River Watershed  
Crawford, Dubois, Perry and Spencer Counties, Indiana

Dear Dr. Provonsha:

Enclosed you will find fifty-six (56) representative macroinvertebrate specimens in individually labeled vials. The accompanying photo-documentation of each provides location and taxonomic identification. Also enclosed is a station location map and table. This voucher collection is being submitted to Purdue University Department of Entomology as part of the Anderson River Diagnostic Study. This project is being done for the Perry County Soil and Water Conservation District and the Indiana Department of Natural Resources through the Lake and River Enhancement (LARE) program. It would be greatly appreciated if our identification of these specimens could be verified.

Please contact me at 630-729-6290 if you have any questions or concerns. Thank you very much.

Sincerely,

V3 COMPANIES, LTD.

Walter Levernier  
Ecologist

Edward J. Belmonte  
Senior Ecologist/Project Manager

WGL/lg

Attachments

cc: Darlene Fischer, Perry Co. SWCD  
Angela Sturdevant, IDNR  
V3 File



Anderson River  
Diagnostic Study  
Photo 1  
Vial 1

11/27/06

*Aeshnidae Basiaeschna*  
sp.

Stations 2, 5, 7, 8, 9, 10,  
14, 15, 16, 17, 18, 19, 20,  
21, 22, 23, 25



Anderson River  
Diagnostic Study  
Photo 2  
Vial 2

11/27/06

*Belostomatidae Belostoma*  
sp.

Stations 2, 7, 8, 9, 20



Anderson River  
Diagnostic Study  
Photo 3  
Vial 3

11/27/06

*Notonectidae Notonecta*  
sp.

Stations 2, 25





Anderson River  
Diagnostic Study  
Photo 4  
Vial 4

11/27/06

*Coenagrionidae Argia* sp.

Stations 2, 5, 6, 7, 8, 9, 10,  
14, 16, 17, 18, 19, 20, 21,  
23, 24, 25



Anderson River  
Diagnostic Study  
Photo 5  
Vial 5

10/31/06

Family: *Cambaridae*

Stations 2, 6, 7, 9, 14, 15,  
16, 17, 18, 19, 20, 21, 22,  
23, 25



Anderson River  
Diagnostic Study  
Photo 6  
Vial 6

10/31/06

Family: *Lymnaeidae*

Stations 2, 7, 8, 15, 16, 17



Anderson River  
Diagnostic Study  
Photo 7  
Vial 7

10/31/06

Family: *Physidae*

Stations 2, 6, 7, 8, 10, 14,  
15, 16, 17, 19



Anderson River  
Diagnostic Study  
Photo 8  
Vial 8

10/31/06

Family: *Palaemonidae*

Stations 2, 7, 8, 9



Anderson River  
Diagnostic Study  
Photo 9  
Vial 9

10/31/06

*Haliplidae Peltodytes* sp.

Stations 2, 7, 15, 16, 17





Anderson River  
Diagnostic Study  
Photo 10  
Vial 10

10/31/06

Family: *Elmidae*

Stations 2, 5, 6, 7, 20



Anderson River  
Diagnostic Study  
Photo 11  
Vial 11

10/31/06

Family: *Elmidae*

Stations 2, 6, 8, 9, 10, 16,  
19, 24, 25



Anderson River  
Diagnostic Study  
Photo 12  
Vial 12

10/31/06

*Talitridae Hyalella azteca*

Stations 2, 5, 9, 10, 14, 15,  
17, 20, 25



Anderson River  
Diagnostic Study  
Photo 13  
Vial 13

11/1/06

Class: *Turbellaria*

Stations 2, 7, 9, 19, 20



Anderson River  
Diagnostic Study  
Photo 14  
Vial 14

11/1/06

Family: *Hydropsychidae*

Stations 2, 5, 6, 8, 9, 10,  
14, 17, 18, 19, 20, 21, 22,  
23, 24, 25



Anderson River  
Diagnostic Study  
Photo 15  
Vial 15

11/1/06

*Calopterygidae*  
*Calopteryx* sp.

Stations 5, 6, 8, 9, 10, 14,  
17, 18, 19, 20, 21, 24, 25





Anderson River  
Diagnostic Study  
Photo 16  
Vial 16

11/1/06

Family: *Philopotamidae*

Stations 5, 6, 7, 8, 9, 10,  
19, 20, 22, 25



Anderson River  
Diagnostic Study  
Photo 17  
Vial 17

11/1/06

*Gerridae Trepobates* sp.

Stations 2, 5, 6, 7, 9, 10,  
14, 15, 16, 17, 18, 19, 21,  
24, 25



Anderson River  
Diagnostic Study  
Photo 18  
Vial 18

11/1/06

Family: *Chironomidae*

Stations 2, 5, 6, 7, 8, 9, 10,  
14, 15, 16, 17, 18, 19, 20,  
21, 22, 23, 24



Anderson River  
Diagnostic Study  
Photo 19  
Vial 19

11/1/06

Family: *Simuliidae*

Stations 5, 6, 20, 22



Anderson River  
Diagnostic Study  
Photo 20  
Vial 20

11/1/06

Family: *Culicidae*

Stations 5, 6, 7, 8, 9, 14,  
15, 16, 18, 19, 20, 21, 23,  
24, 25



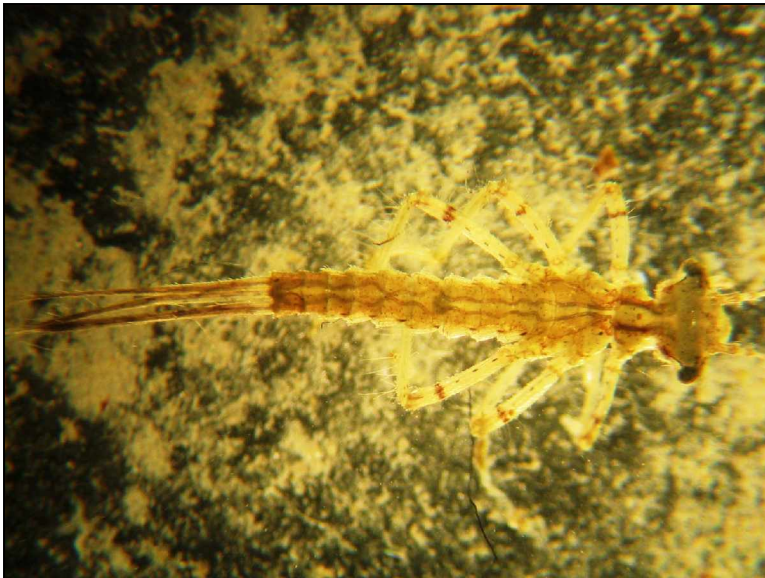
Anderson River  
Diagnostic Study  
Photo 21  
Vial 21

11/1/06

Family: *Tabanidae*

Stations 5, 6, 7, 10, 14, 16,  
17, 19, 20, 21, 24, 25





Anderson River  
Diagnostic Study  
Photo 22  
Vial 22

11/1/06

*Coenagrionidae*  
*Enallagma* sp.

Stations 6, 7, 8, 9, 10, 14,  
15, 16, 17, 19, 20, 21, 22,  
23, 24



Anderson River  
Diagnostic Study  
Photo 23  
Vial 23

11/2/06

*Corbiculidae* *Corbicula*  
*fluminea*

Stations 2, 6, 7, 8, 9, 15,  
16, 21, 23



Anderson River  
Diagnostic Study  
Photo 24  
Vial 24

11/2/06

Class: *Oligochaeta*

Stations 6, 7, 9, 14, 16, 17,  
18, 19, 20, 21, 23, 24

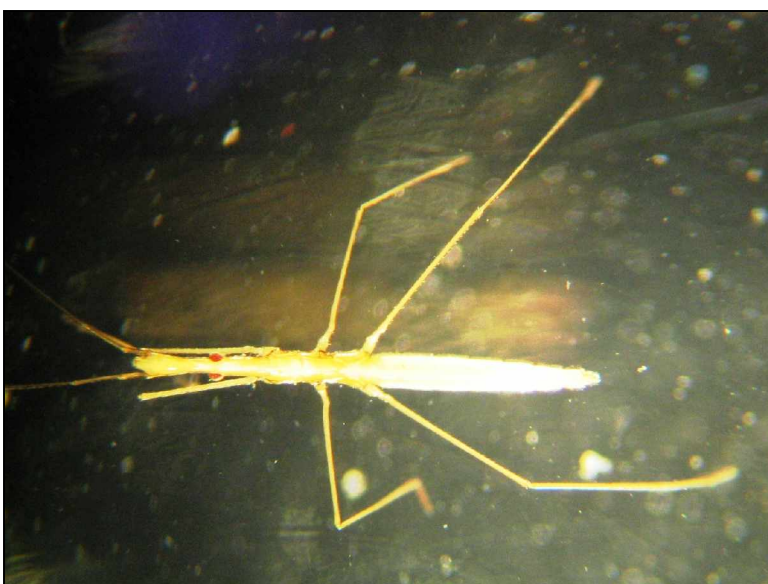


Anderson River  
Diagnostic Study  
Photo 25  
Vial 25

11/2/06

Family: *Gerridae*

Stations 6, 14, 15, 18, 23,  
25



Anderson River  
Diagnostic Study  
Photo 26  
Vial 26

11/2/06

*Hydrometridae*  
*Hydrometra* sp.

Stations 6, 9, 17, 19



Anderson River  
Diagnostic Study  
Photo 27  
Vial 27

11/2/06

*Heptageniidae Stenonema*  
sp.

Stations 6, 7, 10, 14, 15,  
16, 17, 18, 19, 20, 21, 22,  
23, 24, 25





Anderson River  
Diagnostic Study  
Photo 28  
Vial 28

11/2/06

*Caenidae Caenis* sp.

Stations 6, 9, 10, 15, 17,  
18, 19, 20, 21, 23, 24



Anderson River  
Diagnostic Study  
Photo 29  
Vial 29

11/2/06

Family: *Baetidae*

Stations 2, 5, 6, 8, 9, 10,  
14, 15, 17, 18, 19, 20, 21,  
22, 23, 24



Anderson River  
Diagnostic Study  
Photo 30  
Vial 30

11/2/06

*Hydrophilidae*  
*Tropisternus* sp.

Stations 6, 8, 9, 10, 14, 25



Anderson River  
Diagnostic Study  
Photo 31  
Vial 31

11/2/02

Family: *Dryopidae*

Stations 5, 6, 8, 9, 10, 15,  
16, 17, 18, 20, 21, 22, 24,  
25



Anderson River  
Diagnostic Study  
Photo 32  
Vial 32

11/2/06

Family: *Viviparidae*

Station 7



Anderson River  
Diagnostic Study  
Photo 33  
Vial 33

11/2/06

Family: *Gomphidae*

Stations 7, 8, 9, 10, 14, 17,  
21, 23, 24





Anderson River  
Diagnostic Study  
Photo 34  
Vial 34

11/6/06

*Macromiidae Macromia*  
sp.

Stations 8, 17



Anderson River  
Diagnostic Study  
Photo 35  
Vial 35

11/6/06

Family: *Sphaeriidae*

Station 8



Anderson River  
Diagnostic Study  
Photo 36  
Vial 36

11/6/06

*Gyrinidae Dineutus* sp.

Stations 8, 15, 20, 21



Anderson River  
Diagnostic Study  
Photo 37  
Vial 37

11/7/06

*Corduliidae Epitheca* sp.

Stations 9, 25



Anderson River  
Diagnostic Study  
Photo 38  
Vial 38

11/7/06

Family: "Red"  
*Chironomidae*

Stations 6, 7, 9, 10, 14, 16,  
17, 18, 19, 20, 21, 22, 23,  
24, 25



Anderson River  
Diagnostic Study  
Photo 39  
Vial 39

11/7/06

Family: *Noteridae*

Stations 8, 9, 10, 14, 18,  
19, 24, 25





Anderson River  
Diagnostic Study  
Photo 40  
Vial 40

11/7/06

*Heptageniidae Stenacron*  
sp.

Stations 2, 5, 8, 9, 10, 14,  
21



Anderson River  
Diagnostic Study  
Photo 41  
Vial 41

11/7/06

*Sialidae Sialis* sp.

Stations 2, 10, 15, 16, 18,  
20, 23



Anderson River  
Diagnostic Study  
Photo 42  
Vial 42

11/7/06

Family: *Hydrophilidae*

Stations 10, 15, 17, 19, 24



Anderson River  
Diagnostic Study  
Photo 43  
Vial 43

11/7/06

*Cordulegastridae*  
*Cordulegaster* sp.

Station 14



Anderson River  
Diagnostic Study  
Photo 44  
Vial 44

11/13/06

Family: *Ancylidae*

Station 14



Anderson River  
Diagnostic Study  
Photo 45  
Vial 45

11/13/06

*Corydalidae* *Nigronia* sp.

Station 14





Anderson River  
Diagnostic Study  
Photo 46  
Vial 46

11/13/06

*Psephenidae Psephenus*  
sp.

Stations 14, 15, 18, 25



Anderson River  
Diagnostic Study  
Photo 47  
Vial 47

11/13/06

Family: *Planorbidae*

Stations 15, 16, 21



Anderson River  
Diagnostic Study  
Photo 48  
Vial 48

11/13/06

Order: *Hydracarina*

Stations 7, 17, 23



Anderson River  
Diagnostic Study  
Photo 49  
Vial 49

11/16/06

*Gomphidae Progomphus*  
sp.

Stations 21, 22, 24, 25



Anderson River  
Diagnostic Study  
Photo 50  
Vial 50

11/16/06

Family: *Ceratopogonidae*

Stations 22, 25



Anderson River  
Diagnostic Study  
Photo 51  
Vial 51

11/16/06

Class: *Hirudinea*

Stations 21, 23



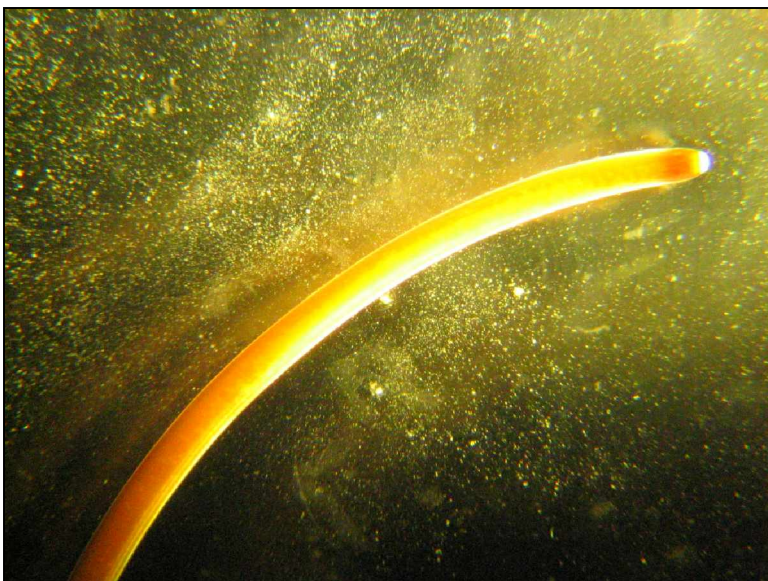


Anderson River  
Diagnostic Study  
Photo 52  
Vial 52

11/16/06

Order: *Isopoda*

Stations 18, 23, 24, 25



Anderson River  
Diagnostic Study  
Photo 53  
Vial 53

11/16/06

Phylum: *Nematomorpha*

Station 25



Anderson River  
Diagnostic Study  
Photo 54  
Vial 54

11/27/06

Family: *Chloroperlidae*

Stations 14, 18, 25





Anderson River  
Diagnostic Study  
Photo 55  
Vial 55

11/27/06

*Rhyacophilidae*  
*Rhyacophila* sp.

Stations 18, 25



Anderson River  
Diagnostic Study  
Photo 56  
Vial 56

11/27/06

*Leptophlebiidae*  
*Leptophlebia* sp.

Stations 15, 20



Anderson River  
Diagnostic Study  
Photo 57  
No Vial

11/2/06

*Pyrallidae* *Crambus* sp.

Station 7